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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,102	12/11/2000	Rosario Gennaro	YOR920000597US1(13879)	3899

7590

11/24/2006

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Garden City, NY 11530

EXAMINER
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MOORTHY, ARAVIND K

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/734,102	<b>Applicant(s)</b> GENNARO ET AL.	
	<b>Examiner</b> Aravind K. Moorthy	<b>Art Unit</b> 2131	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,7-9,11-13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-9,11-13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This is in response to the arguments filed on 3 November 2006.
2. Claims 1-5, 7-9, 11-13 and 15-17 are pending in the application.
3. Claims 1-5, 7-9, 11-13 and 15-17 have been rejected.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-5, 7-9, 11-13 and 15-17 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-5, 7-9, 11-13 and 15-17 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 1 recites the limitations "signing the coin with a non-homomorphic signature" and "said co-processor forming an encrypted copy of the signed coin and an encrypted copy of the unsigned coin using a public key of a given encryption scheme having said public key and a private key". In the step prior to the encryption, the coin has been signed. However, it is unclear to the examiner how there can be an encrypted copy of the unsigned coin after the coin has already been signed.

Independent claim 3 recites the limitations "signing the unit with a non-homomorphic signature to enable the customer to use the electronic cash while keeping the identity of the customer unknown to the coprocessor" and "the bank using the secure cryptography generator to

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encrypt both the signed unit and the unsigned unit using the public key of said given encryption scheme". In the step prior to the encryption, the unit has been signed. However, it is unclear to the examiner how there can be an encrypted copy of the unsigned unit after the unit has already been signed.

Independent claim 7 recites the limitations "means for signing the unit with a non-homomorphic signature to enable the customer to use the electronic cash while keeping the identity of the customer unknown to the coprocessor" and "wherein the secure cryptography generator encrypts both the signed unit and the unsigned unit using the public key of said given encryption scheme". In the step prior to the encryption, the unit has been signed. However, it is unclear to the examiner how there can be an encrypted copy of the unsigned unit after the unit has already been signed.

Independent claim 11 recites the limitations "signing the unit with a non-homomorphic signature to enable the customer to use the electronic cash while keeping the identity of the customer unknown to the coprocessor" and "using the secure cryptography generator to encrypt both the signed unit and the unsigned unit using the public key of said given encryption scheme". In the step prior to the encryption, the unit has been signed. However, it is unclear to the examiner how there can be an encrypted copy of the unsigned unit after the unit has already been signed.

On claims not directly addressed are rejected on the virtue of their dependency.

6. Claims 1-5, 7-9, 11-13 and 15-17 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: forming a copy of an unsigned coin or unit.

*Allowable Subject Matter*

7. Claims 1-5, 7-9, 11-13 and 15-17 are allowed.

As to independent claims 1, 3, 7 and 11 prior art does not disclose, teach or suggest a coprocessor forming an encrypted copy of a signed coin/unit and an encrypted copy of the unsigned coin/unit using a public key of a given encryption scheme having the public key and a private key. Prior art does not disclose, teach or suggest sending back to the user both the encrypted copy of the signed coin/unit and encrypted copy of the unsigned coin/unit. Prior art does not disclose, teach or suggest the user having the private key of the given encryption scheme. Prior art does not disclose, teach or suggest that the user then using the private key to decrypt both the signed and unsigned copies of the coin/unit. Prior art does not disclose, teach or suggest using the pair of signed and unsigned copies of the coin/unit as a unit as digital cash for payment to a recipient while keeping the identity of the user unknown to the coprocessor.

Any claims not directly addressed are allowed on the virtue of dependency.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aravind K Moorthy  
November 17, 2006

  
AYAZ SHEIKH  
SUPERVISORY PATENT EXAMINER  
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